

PHENIX WEEKLY PLANNING

7/13/06

Don Lynch

PHENIX Shutdown Overview

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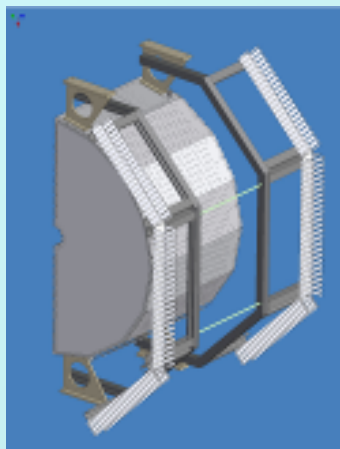
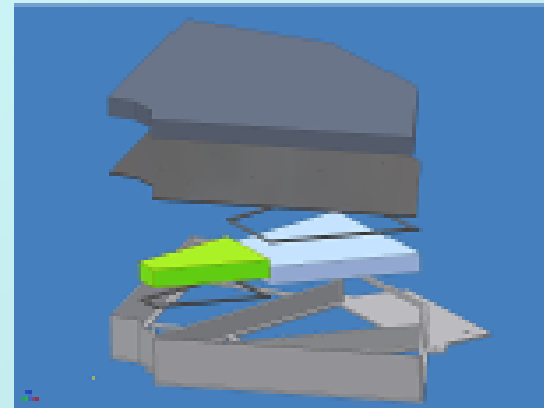
Task_Name	Duration	Start_Date	Finish_Date
PHENIX Shutdown '06	145 days	5/1/2006	11/17/2006
Pre Shutdown Tasks	60 days	5/1/2006	7/21/2006
End of Run 6	0 days	6/27/2006	6/27/2006
Shutdown Preparations	16 days	6/27/2006	7/18/2006
Detector Upgrades	47 days	7/19/2006	9/21/2006
Planned electrical power outage	5 days	7/24/2006	7/28/2006
Subsystem maint/repair tasks	47 days	7/19/2006	9/21/2006
Building and infrastructure tasks	113 days	5/1/2006	10/4/2006
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006

Prior To Shutdown

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Pre Shutdown Tasks

	60 days	
Mechanical design For RXNP	4 wks	Complete
HBD cable mangement	4 wks	Complete
Receive TOF West detectors from VU	0 days	Here
TOF West pre-installation tests (hi bay)	4 wks	In Progress
Design mounting/install'n for MPC N	6 wks	In Progress
Order/fabricate parts for RXNP/HBD/MPC N	12 wks	In Progress
Modify TEC connectors	2 wks	In Progress
Design piping route for Bridge water	1 wk	TBD
Work Permits	1 wk	In Process
End of Run 6	0 days	



Shutdown Prep

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Shutdown Preparations

Purge gas from all detectors

End of Run party

DAQ tests (no Flam. Gas)

Open up & prep

Open rolling door

Remove rolling wall and plug doors

Take down EC access ladder & fold platforms

Prepare EC for move to AH

Remove beampipe collar

Move MMS full south and restrain

Retract and remove EC to AH

Install 12 ton cart on tracks

Move beampipe collar to AH

Install decking



16 days

6/26/2006

7/18/2006

2 days

Done

Done

0 days

Done

Done

3 days

Done

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1 day

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1 wk

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Detector Upgrades

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TOF W

Prepare installation Fixtures

13 days 7/17/2006 8/4/2006

Mockup test installation

1 day 7/17/2006 7/18/2006

TOF Mechanical installation

1 day 7/18/2006 7/19/2006

3 days 7/20/2006 7/22/2006

Electrical Outage

5 days 7/24/06 7/28/06

TOF Electrical Installation

5 days 7/31/2006 8/4/2006

RXNP

Prepare for installation

15 days 7/31/2006 8/18/2006

Mechanical installation

5 days 7/31/2006 8/4/2006

Electrical installation

5 days 8/7/2006 8/11/2006

2 days 8/14/2006 8/15/2006

Prepare for Summer Sunday Tours

3 days 8/16/06 8/18/06

HBD

Prepare for installation

15 days 8/14/2006 9/1/2006

Mechanical installation

2 days 8/14/2006 8/16/2006

Electrical installation

5 days 8/21/2006 8/25/2006

5 days 8/28/2006 9/1/2006

MPC North

Move CM south

18 days 8/28/2006 9/20/2006

Prepare for installation

2 days 8/28/2006 8/29/2006

Mechanical installation

5 days 8/30/2006 9/5/2006

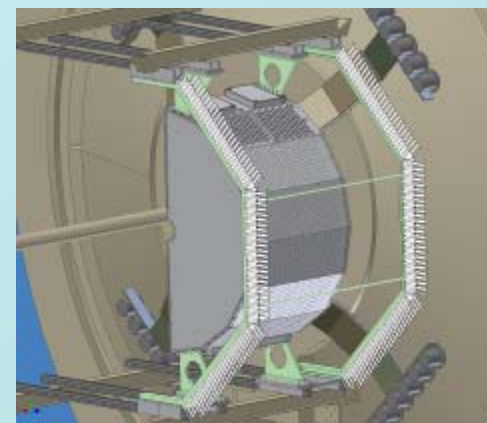
Electrical installation

5 days 9/6/2006 9/12/2006

Move CM North

5 days 9/13/2006 9/19/2006

1 day 9/20/2006 9/20/2006



Subsystems

Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
Prepare EC for subsystems work	1 wk	7/19/06	7/25/06
Magnet subsystems tasks	0 day	None	None
Aerogel tasks	0 day	None	None
BBC tasks	50 days	7/21/06	9/28/06
Remove BBC South	2 days	8/21/06	8/22/06
Replace PMT's	13 days	8/23/06	9/12/06
Reinstall BBC South	2 days	9/13/06	9/14/06
Remove BBC North	2 days	8/28/06	8/30/06
Replace PMT's	5 days	8/31/06	9/6/06
Reinstall BBC North	2 days	9/7/06	9/8/06
DC			
HV/LV	2 wks	Started	7/29/06
DC West wire repairs	1 week	9/15/06	9/19/06



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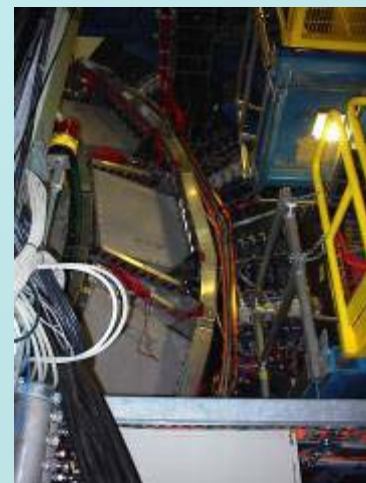
Subsystems (continued)

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Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
EmCal tasks (EC)	7 days	Done	Done
EmCal tasks (WC)	5 days	Done	Done
FCAL tasks	1 day	None	None
MPC S repairs	2 wks	7/19/06	8/1/06
MuTr tasks	42 days	7/19/06	9/14/06
Remove lampshade(s)	1 day	7/19/06	7/19/06
Repair HV	8 wks	7/20/06	9/13/06
Reinstall lampshade(s)	1 day	9/14/06	9/14/06
MuID tasks	1 day	None	None
PC tasks	1 day	None	None
RICH tasks	1 day	None	None
TEC tasks			
(General Maintenance)	9 wks	7/19/06	9/19/06
TOF E tasks (1 day	None	None
ZDC tasks (TBD)	1 day	None	None
Subsystem Survey	3 wks	7/31/06	8/18/06
Misc Subsystem tasks (TBD)	6 wks	8/9/06	9/19/06



Infrastructure Work



Building and infrastructure tasks	113 days	6/26/2006	10/4/2006
AH infrastructure tasks	0 days	None	None
Nothing planned	0 day	None	None
IR infrastructure tasks	17 days	7/17/2006	8//2006
Repair water lines to Bridge	1 day	7/17/2006	7/17/2006
Replace emergency fan louvres	1 wk	7/18/2006	7/24/2006
Rewire/add IR Ceiling lights on emergency power	1 wk	7/25/2006	8/1/2006
Move WC away from Wall	1 day	8/2/2006	8/2/2006
Replace WC sliding platform hoisting cables	1 wk	8/3/2006	8/9/2006
Gas Pad	0 day	None	None
Nothing planned	0 day	None	None
Gas Mixing House	3 wks	8/14/06	9/1/06
Exhaust fan maintenance	3 wk	8/14/06	9/1/06
Rack Room	0 day	None	None
Nothing planned	0 day	None	None
Counting House	0 day	None	None
Nothing planned	0 day	None	None
all other PHENIX infrastructure	113 days	6/26/2006	10/4/2006
New raw materials storage container – painting & doors needed	4 wk	6/26/06	7/21/06
Repair roof leaks	113 days	6/26/06	9/22/06
Install bridge access platforms from EC & eyebrow	2 days	Done	Done

Prep for Run 7

TESTING - 2006

RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Move MMS full North	1 day	10/16/2006	10/16/2006
Install beam pipe collar	1 day	10/17/2006	10/17/2006
Rebuild Rolling door	1 wk	10/18/2006	10/24/2006
Install Plug Door & steel platform	1 day	10/25/2006	10/25/2006
Close rolling door	1 day	10/26/2006	10/26/2006
Pink Sheeting & Blue Sheeting	2 wks	10/27/2006	11/9/2006
Start Flammable Gas Flow	1 day	11/10/2006	11/10/2006
All Up Commissioning	5 days	11/13/2006	11/17/2006
Beam in yellow ring	1 wk	11/13/2006	11/17/2006
Beam in blue ring	1 wk	11/13/2006	11/17/2006
RHIC beam conditioning	1 wk	11/13/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006



EC Roll-in

E carriage roll in & setup

Prepare EC for move to IR

EC Roll in

Connect EC services

Install EC Ladder

Install EC rear access & ext.

RHIC Cooldown Begins

14 days

9/22/2006

10/11/2006

1 wk

9/22/2006

9/28/2006

2 days

9/29/2006

10/2/2006

1 wk

10/3/2006

10/9/2006

1 day

10/10/2006

10/10/2006

1 day

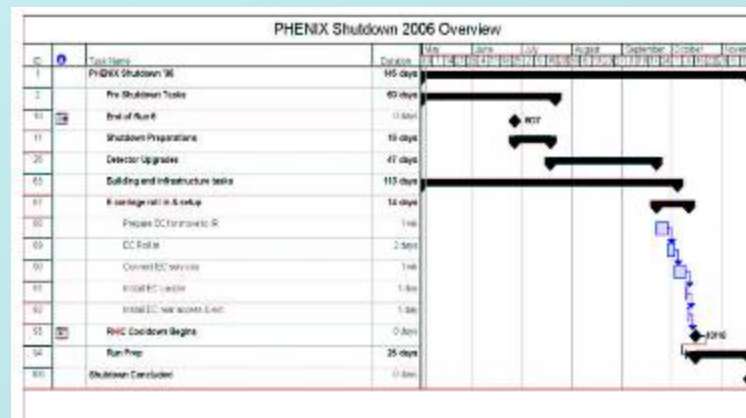
10/11/2006

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0 days

10/16/2006

10/16/2006



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Shutdown 2006

key dates

- MPC North & RXNP Safety Reviews June 22 [Done]
- Run ends June 26 [Done]
- End of Run Party June 29 [Done]
- Open Shield wall June 26 [Done]
- Prep and move EC July 10 [Done]
- Install TOF W (start) July 17
- Planned electrical outage July 24th-28th (1 week)
- Install RXNP (start) July 31
- Install HBD (start no later than) Aug 14 (possibly as early as Aug 1)
- Summer Sunday tours Aug. 20
- Install MPC North (start no later than) Aug 28
- Start EC roll in Sep. 22
- Start RHIC Cooldown Oct. 15
- Start of Run Party [Date and Time TBD]
- Start Physics data taking Nov. 17

Subsystems: Get requests for maintenance in early to get on the schedule

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- EC prep for move to AH
 - carpenters & riggers [Done]
 - electrical [Done]
 - water & gas [Done]
- TOF W Hi Bay Tests:
 - install new HV connectors [Done]
 - electrical tests [On going]
 - leak tests [Done]
- TOF W support structure modifications
 - 2 rails [in process at CS]
 - 4 i-beams [2 in process at CS 2 w/mockup]
- Finish/submit Work Permits [MPC N & S, HBD & RXNP in process, all others Done]
- Continue fabrication of RXNP, HBD, MPC N
- RXNP fit-up in trays [Done]
- TEC connectors [300 in process at CS]
- MuID Collars removal [Done]
- EC move to AH [Done?]
- MuID collars to AH (by tomorrow?)
- 12 ton cart on tracks (by tomorrow?)
- Road trip to SB postponed to week of June 24th



Next Week

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- TOF W tests end, modification decisions made, installation starts
- RXNP assembly and testing continues
- RXNP fabrication nears completion
- HBD fabrication continues
- MPC fabrication continues
- Redo Bridge piping?
- Start assembling HBD support parts

TOF W

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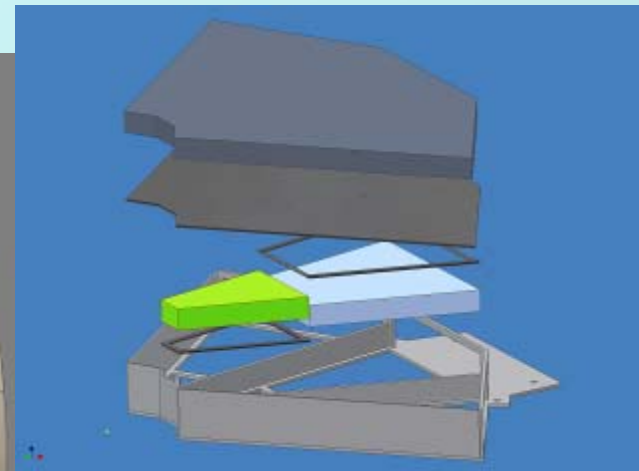
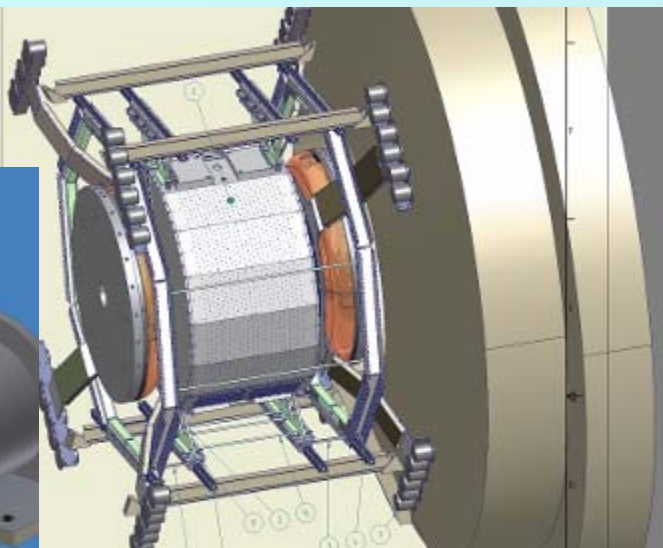
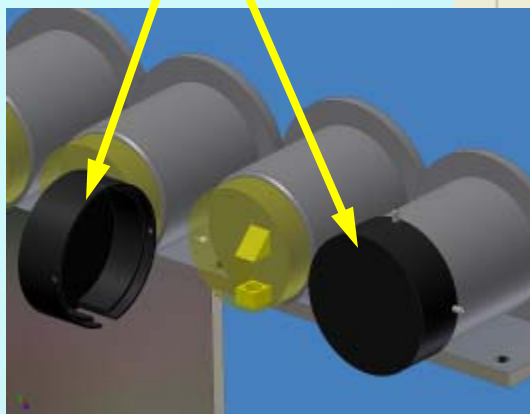
- Mounting holes finished
- HV connectors installed
- Adapters for HV connectors made
- Need final locations for detectors
- Remove/modified rails
- 2 more i-beams in CS
- Leak tested
- Wire end connectors ordered
- Ready for installation next week



RXNP

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Prism holders ordered



LED Box location?
Most parts
complete
Fit up complete -

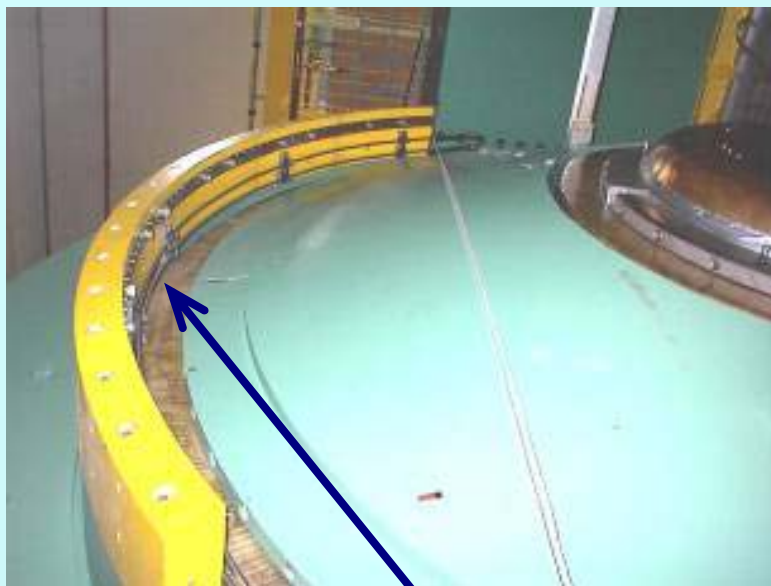
Minor rework of
trays and spacers
required.

Rework is spec'ed
and in shops



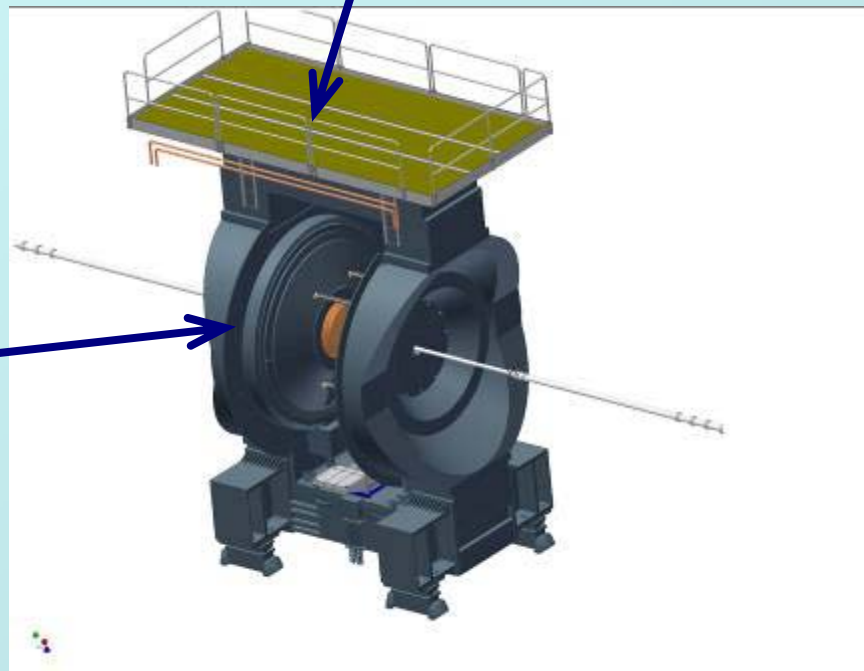
RXNP

RXNP Rack to be located on Bridge



Cable Trays to be routed on inside of lead bricks at OD of CM pole faces

Cable routing plan to be finalized



RXNP Preassembly Work (7/10-7/14)

- Source test of scintillator (Eric, Matt, Nick)
- Multi-clad vs Single-clad tests (Eric, Matt, Nick)
- Test size of all scintillators with no go gauge (Eric, Matt, Nick)
- Test size of all converters (?Don, Richie?)
- ✓ Mock assembly of one tray
 - ✓ Welding thickness in corners
 - Fiber routing for final arm cover design (Abby, Don, Richie)
- LED Calibration System
 - LED box placement (Abby, Don)
 - Finalize calibration fiber routing & length (Abby, Don)
 - Cut & polish fibers (Eric, Matt, Nick)

RXNP Assembly Plan (7/17-7/30)

- **Gluing (hardens in 4hours, final in 3 days)**
 - Glue fiber prism joint & allow to cure
 - Glue LED fiber in prism & allow to cure
- **Attach prism to pmt face with optical grease**
- **Wrap pmt/prism/fiber joints for preliminary light tightness**
- **Test for light tightness**
- **Attach prism cover**
- **Test for light tightness**
- **Stack scintillator and spacers in tray**
- **Route fibers through tray & arm**
- **Attach pmt to pmt holder**
- **Signal test assembly**
- **Heat shrink fiber wrapping**
- **Attach arm lids**
- **Insert Pb converter**
- **Final test before installation**

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RXNP Outstanding Issues

- **Signal & HV cables**
 - Lengths
 - Routing
- **LED Calibration Pulser Cables**
 - Lengths
 - Routing



Purchasing List done

SB Road Trip

1st detector now at SB
2nd shipped from Weizmann
Inst.

HBD

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1st detector arrives at SB



1st detector in glove box

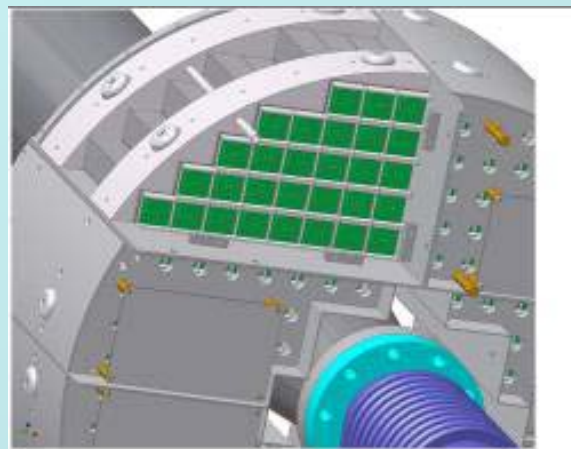
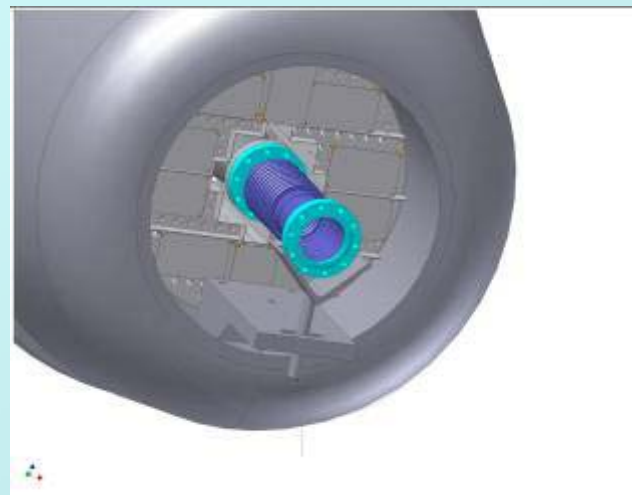


2nd detector leaves Weizmann

MPC North

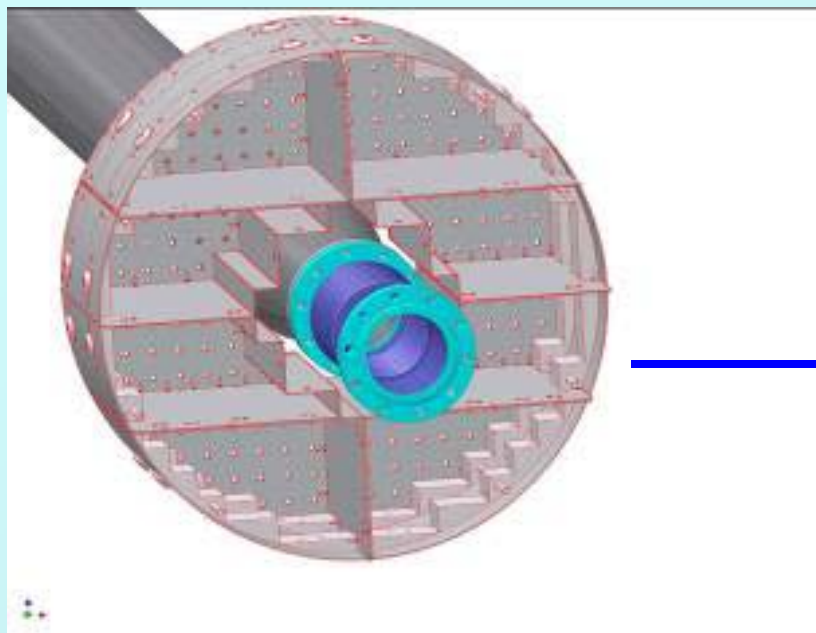
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- Model rec'd
- Manufacturing/Assembly drawings
- Rack final location?
- Cable routing plan
- UI techs assist in installation?

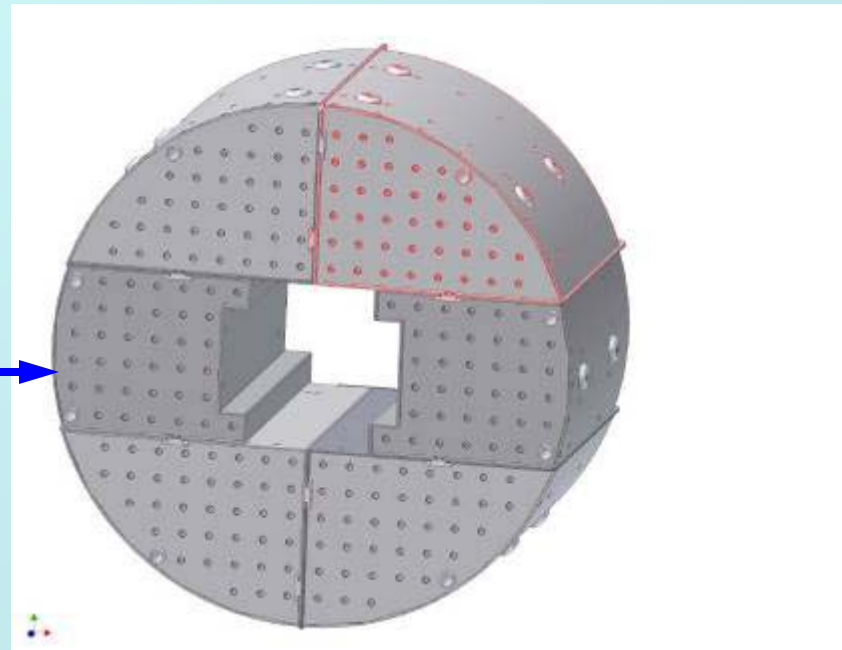


MPC North

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Version 1



Version 2

MPC North

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MPC N rack to be
mounted on top of
MUID rack in NW
of IR (on floor
near west side of
MMN)



*Other locations are being considered
Specifically the side of the MuID cabinet*

Or

High up on east side of NMM

MPC North



Optional location #2 for MPC N rack
(side of MuID rack)

Need to relocate this cable tray

Optional location #3 for MPC N rack
(above Northeast NNM)



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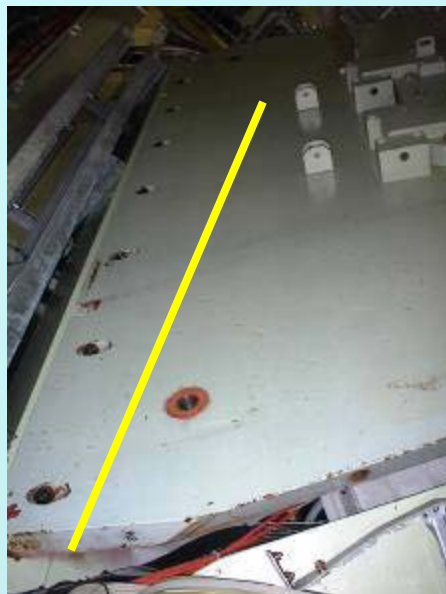
Cable Routing

Technical Support 2006

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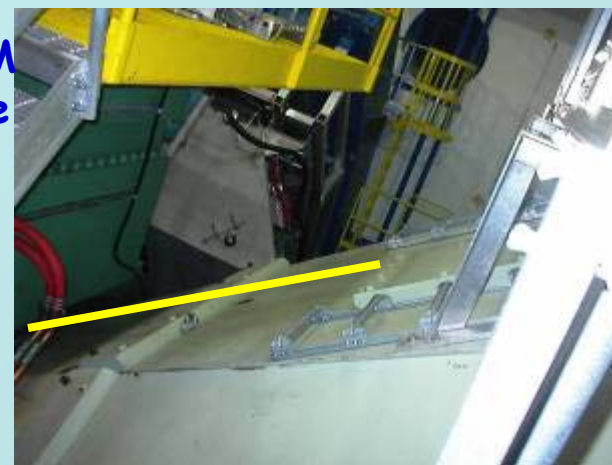
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1. From MuID rack to NMM
2. Up NMM vertical I/shade
3. Over top of NMM to center, then down
4. Under scaffold platform
5. down top lampshade (like MPC S)

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Other Projects

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Muon RPC

- Nothing New

Beampipe design

- Nothing new design concept in progress

New CM Crane

- C Pearson caution concerning interference with bridge utils.

Engineering Documentation

- Nothing new



Work Permits

New Detectors

- TOF West same as last year, update and submit [DONE]
- RXNP Need to finalize procedure [working on it]
- HBD (Med-low-low) [working on it]
- MPC N similar to last year, update and submit [working on it]

Maintenance

- MuTr - combine N & S confined space permit [DONE]
- DC Low-low-low? PHENIX permit/procedure [DONE]
- BBC Low-low-low? PHENIX permit/procedure [DONE]
- MPC S Low-Med-low? PHENIX permit/procedure [working on it]
- EmCal Low-low-low? PHENIX permit/procedure [DONE]
- TEC Low-low-low? PHENIX permit/procedure [DONE]

Other Work

- No permit requirements identified?

Breaker Safety

Update on breaker analyses and equipment upgrade plans:

Fuse Issues

Siemens Allis Low Voltage Air Circuit Breaker



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Current Tasks

- General run support/building services
- New storage trailer needs doors (paint?)
- Fix roof leaks
- HVAC troubleshooting/repair

Tasks for Shutdown 2006

- See Shutdown schedule



Where To Find PHENIX Technical Info

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Links for the shutdown schedule as well as weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found from the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm